

AMENDMENT TO THE CLAIMS

What is claimed is:

1.(Currently Amended) A medical radiation device for interstitial treatments of photodynamic therapy comprising:

multiple radiation output ports, each adapted to accept a waveguide;

multiple radiation sources incorporated in said device and optically connected to said multiple radiation output ports; and

means ~~to~~ for independently controlling power output levels emitted through each individual radiation output port simultaneously, wherein said power output level can be controlled/set independently for each individual output port.

2.(Original) The medical radiation device according to claim 1, wherein said radiation source comprises a diode unit, wherein said diode unit comprises at least two diode emitters.

3.(Original) The medical radiation device according to claim 2, wherein said diode emitters are selected from the group consisting of a diode laser, a light-emitting diode, a superluminescent diode, a Master Oscillator Power Amplifier (MOPA) diode, and a tapered diode.

4.(Previously Presented) The medical radiation device according to claim 1, further comprising at least one power source connected to one or more said radiation sources and connected to said control means, wherein a power input from said at least one power source is controllable by said control means for each radiation source.

5.(Original) The medical radiation device according to claim 1, wherein said control means is a computer.

6.(Original) The medical radiation device according to claim 1, further comprising means to input power levels for each output port.

7.(Original) The medical radiation device according to claim 1, wherein said control means comprises a memory unit to store information on treatments.

8. (canceled)

9.(Original) The medical radiation device according to claim 1, further comprising a calibration means connected to said control means.

10.(Currently Amended) The medical radiation device according to claim 9, wherein said calibration means comprises:

a port for accepting an emission end of a radiation delivery device;

means ~~to~~ for measure[e]ing a power output from said emission end; and

means ~~to~~ for transmitting power output information from said measurement means to said control means.

11.(Original) The medical radiation device according to claim 10, wherein said measurement means is a photodiode.

12.(Previously Presented) A medical radiation system comprising:

the medical radiation device for interstitial treatments of photodynamic therapy of claim 1; and

multiple radiation delivery devices, wherein each radiation delivery device is optically connected to one of said radiation output ports.

13.(Previously Presented) The medical radiation system according to claim 12, wherein each said radiation delivery device comprises a waveguide selected from the group consisting on an optical fiber and an optical fiber bundle.

14.(Previously Presented) The medical radiation system according to claim 12, wherein each said radiation delivery device comprises means to insert an emission end of each said radiation delivery device individually into a treatment area.

15.(Original) The medical radiation system according to claim 12, further comprising a calibration means connected to said control means.

16.(Currently Amended) The medical radiation system according to claim 15, wherein said calibration means comprises:

- a port for accepting an emission end of a radiation delivery device;
- means ~~to~~ for measure[e]ing a power output from said emission end; and
- means ~~to~~ for transmitting power output information from said measurement means to said control means.

17.(Original) The medical radiation system according to claim 16, wherein said measurement means is a photodiode.

18.(New) A medical radiation device for interstitial treatments of photodynamic therapy comprising:

- multiple radiation output ports, each adapted to accept a waveguide;
- multiple radiation sources incorporated in said device, wherein said radiation source comprises a diode unit, and wherein said diode unit comprises at least two diode emitters optically connected to said multiple radiation output ports;
- means for independently controlling power output levels emitted through each individual radiation output port simultaneously, wherein said power output level can be controlled/set independently for each individual output port; and
- an input means for entering the desired power level for each individual diode unit.